WHAT IS CLAIMED IS:

1. An interactive navigation system that comprises a mobile apparatus and a server and carries out navigation by said mobile apparatus requesting said server to search for a route and said server transmitting a search result to said mobile apparatus,

said mobile apparatus comprising:

input means for inputting at least a destination; and

first transmitter means for transmitting a packet including at least the destination inputted by said input means to said server,

said server comprising:

map data storage means for storing map data;

first receiver means for receiving the packet transmitted by said first transmitter means;

route search means for searching for the route based on the destination included in the packet received by said first receiver means and the map data stored in said map data storage means;

map data selector means for selecting, from among the map data stored in said map data storage means, only map data including the route found by said route search means;

billing means that holds a price list including unit prices for the map data stored in said map data storage means, for calculating an amount of charge for the map data selected by

said map data selector means based on the price list, and generating billing information including at least the amount of charge; and

second transmitter means for transmitting, to said mobile apparatus, a packet including at least the route found by said route search means, the map data selected by said map data selector means, and the billing information generated by said billing means.

2. The interactive navigation system according to claim 1, wherein

said mobile apparatus further comprises:

second receiver means for receiving the packet transmitted by said second transmitter means; and

route guide means for carrying out route guide based on the route included in the packet received by said second receiver means and the map data.

3. The interactive navigation system according to claim 1, wherein

said mobile apparatus further comprises present position detector means for detecting a present position of the mobile apparatus,

the packet transmitted by said first transmitter means further includes the present position detected by said present

position detector means, and

based on the present position and the destination included in the packet received by said first receiver means and the map data stored in said map data storage means, said route search means searches for the route from the present position and the destination.

4. The interactive navigation system according to claim 1, wherein

a starting point is inputted by said input means,

the packet transmitted by said first transmitter means includes the starting point inputted by said input means, and

based on the starting point and the destination included in the packet received by said first receiver means and the map data stored in said map data storage means, said route search means searches for the route from the starting point and the destination.

5. The interactive navigation system according to claim 1, wherein

said server further comprises related information storage means for storing related information relating to the map data stored in said map data storage means,

the price list held by said billing means includes a unit price for the related information stored in said related

information storage means,

said billing means calculates an amount of charge for related information relating to the map data selected by said map data selector means, and adds the calculated amount of charge to said billing information, and

the packet transmitted by said second transmitter means further includes the related information relating to the map data selected by said map data selector means.

6. The interactive navigation system according to claim 5, wherein

said mobile apparatus further comprises presenter means for presenting the related information included in the packet received by said second receiver means.

7. The interactive navigation system according to claim 6, wherein

the related information includes traffic jam information for roads in an area that corresponds to the map data, and

said billing means calculates an amount of charge for the traffic jam information as the amount of charge for related information relating to the map data selected by said map data selector means.

8. The interactive navigation system according to claim

1, wherein

a registration identifier is further inputted by said input means,

the packet transmitted by said first transmitter means further includes the registration identifier inputted by said input means,

said server further comprises registration check means that holds a registration check list including at least all valid registration identifiers, for determining whether the registration identifier included in the packet received by said first receiver means is in the registration check list, and

said route search means carries out the route search only when said registration check means determines that the registration identifier is in the registration check list.

9. The interactive navigation system according to claim 1, wherein

said map data storage means stores a plurality of map data of different forms for use in displaying a same map,

a registered data form is further inputted by said input means,

the packet transmitted by said first transmitter means further includes the registered data form inputted by said input means,

the registration check list held by said registration check

means includes the registered data form that corresponds to a registered identifier, and

said map data selector means selects, from among the map data stored in said map data storage means, only map data including the route found by said route search means and complying with a registered data form included in the packet received by said first receiver means.

10. A server that searches for a route in response to a request from a mobile apparatus and transmits the route found by search to said mobile apparatus,

said mobile apparatus comprising:

input means for inputting at least a destination; and

first transmitter means for transmitting a packet including at least the destination inputted by said input means to said server,

said server comprising:

map data storage means for storing map data;

first receiver means for receiving the packet transmitted by said first transmitter means;

route search means for searching for the route based on the destination included in the packet received by said first receiver means and the map data stored in said map data storage means;

map data selector means for selecting, from among the

map data stored in said map data storage means, only map data including the route found by said route search means;

billing means that holds a price list including unit prices for the map data stored in said map data storage means, for calculating an amount of charge for the map data selected by said map data selector means based on the price list, and generating billing information including at least the amount of charge; and

second transmitter means for transmitting, to said mobile apparatus, a packet including at least the route found by said route search means, the map data selected by said map data selector means, and the billing information generated by said billing means.

11. An interactive navigation method of carrying out navigation by searching for a route in response to a request from a mobile apparatus and transmitting the route found to said mobile apparatus,

said mobile apparatus comprising:

input means for inputting at least a destination; and

transmitter means for transmitting a packet including at least the destination inputted by said input means to said server,

said method comprising:

a step of storing map data;

a step of receiving the packet transmitted by said transmitter means;

a step of searching for the route based on the destination included in the packet received in said receiving step and the map data stored in said map data storing step;

a step of selecting, from among the map data stored in said map data storing step, only map data including the route found in said route searching step;

a billing step of calculating an amount of charge for the map data selected in said map data selecting step based on a price list including unit prices for the map data stored in said map data storing step, and generating billing information including at least the amount of charge; and

a step of transmitting, to said mobile apparatus, a packet including at least the route found in said route searching step, the map data selected in said map data selecting step, and the billing information generated in said billing step.

12. A program that describes an interactive navigation method of carrying out navigation by searching for a route in response to a request from a mobile apparatus and transmitting the route found to said mobile apparatus,

said mobile apparatus comprising:

input means for inputting at least a destination; and

transmitter means for transmitting a packet including

at least the destination inputted by said input means to said server,

said method comprising:

a step of storing map data;

a step of receiving the packet transmitted by said transmitter means;

a step of searching for the route based on the destination included in the packet received in said receiving step and the map data stored in said map data storing step;

a step of selecting, from among the map data stored in said map data storing step, only map data including the route found in said route searching step;

a billing step of calculating an amount of charge for the map data selected in said map data selecting step based on a price list including unit prices for the map data stored in said map data storing step, and generating billing information including at least the amount of charge; and

a step of transmitting, to said mobile apparatus, a packet including at least the route found in said route searching step, the map data selected in said map data selecting step, and the billing information generated in said billing step.

13. An interactive navigation system that comprises a plurality of mobile apparatuses and a server and carries out navigation by one of said mobile apparatuses requesting said

server to search for a route and said server transmitting a search result to said mobile apparatus,

each of said mobile apparatuses comprising:

input means for inputting at least a destination;

present position detector means for detecting a present position of the mobile apparatus; and

first transmitter means for transmitting a packet including at least the destination inputted by said input means and/or the present position detected by said present position detector means to said server,

said server comprising:

map data storage means for storing map data;

first receiver means for receiving the packet transmitted by said first transmitter means;

route search means for searching for a route, if the packet received by said first receiver means includes the destination, based on the destination and the map data stored in said map data storage means; and

second transmitter means for transmitting a packet including at least the route found by said route search means to said mobile apparatus, wherein

said route search means

holds a mobile apparatus position/route management table for recording and managing the present position of each of said mobile apparatuses and the route found for each of said mobile

apparatuses,

finds a plurality of reachable routes to the destination when the packet received by said first receiver means includes the destination,

sequentially calculates, for each of the found reachable routes, a time when a target mobile apparatus will pass at predetermined speed along the route through each link composing the reachable route,

calculates, for each link, a number of presumed passing apparatuses that indicates how many mobile apparatuses will pass through the link simultaneously when the target mobile apparatus will pass through the link, based on the present position of the mobile apparatuses other than the target mobile apparatus and the route recorded in said mobile apparatus position/route management table,

calculates a weight to be provided to each link based on the number of presumed passing apparatuses calculated for each link, and

searches for the route based on a route graph with each link provided with at least the weight calculated based on the number of presumed passing apparatuses.

14. The interactive navigation system according to claim 13, wherein

said server further comprises input/output means connected

to a communication line network, and

said route search means

further externally receives traffic jam information through said input/output means and said communication line network, and calculates a weight to be provided to each link based on the traffic jam information,

finds the plurality of reachable routes based on a route graph with each link provided with the weight calculated based on the traffic jam information, and

searches for the route based on the weight calculated based on the traffic jam information and the weight calculated based on the number of presumed passing apparatuses.

15. An interactive navigation method of carrying out navigation by searching for a route in response to a request from one of a plurality of mobile apparatuses and transmitting the route found to said mobile apparatus,

each of said mobile apparatuses comprising:

input means for inputting at least a destination;

present position detector means for detecting a present position of the mobile apparatus; and

transmitter means for transmitting a packet including at least the destination inputted by said input means and/or the present position detected by said present position detector means to said server,

said method comprising:

a step of storing map data;

a step of receiving the packet transmitted by said transmitter means;

a step of searching for a route, when the packet received in said receiving step includes the destination, based on the destination and the map data stored in said map data storing step; and

a step of transmitting a packet including at least the route found in said route searching step to said mobile apparatus, wherein

in said route searching step,

a mobile apparatus position/route management table is held for recording and managing the present position of each of said mobile apparatuses and the route found for each of said mobile apparatuses, and

said route searching step further comprising:

a step of finding a plurality of reachable routes to the destination if the packet received in said receiving step includes the destination;

a step of sequentially calculating, for each of the found reachable routes, a time when a target mobile apparatus will pass at predetermined speed along the route through each link composing the reachable route;

a step of calculating, for each link, a number of

presumed passing apparatuses that indicates how many mobile apparatuses will pass through the link simultaneously when the target mobile apparatus will pass through the link, based on the present position of the mobile apparatuses other than the target mobile apparatus and the route recorded in said mobile apparatus position/route management table;

a step of calculating a weight to be provided to each link based on the number of presumed passing apparatuses calculated for each link; and

a step of searching for the route based on a route graph with each link provided with at least the weight calculated based on the number of presumed passing apparatuses.

16. A program that describes an interactive navigation method of carrying out navigation by searching for a route in response to a request from one of a plurality of mobile apparatuses and transmitting the route found to said mobile apparatus,

each of said mobile apparatuses comprising:

input means for inputting at least a destination;

present position detector means for detecting a present position of the mobile apparatus; and

transmitter means for transmitting a packet including at least the destination inputted by said input means and/or the present position detected by said present position detector means to said server,

said method comprising:

a step of storing map data;

a step of receiving the packet transmitted by said transmitter means;

a step of searching for a route, when the packet received in said receiving step includes the destination, based on the destination and the map data stored in said map data storing step; and

a step of transmitting a packet including at least the route found in said route searching step to said mobile apparatus, wherein

in said route searching step,

a mobile apparatus position/route management table is held for recording and managing the present position of each of said mobile apparatuses and the route found for each of said mobile apparatuses, and

said route searching step further comprising:

a step of finding a plurality of reachable routes to the destination if the packet received in said receiving step includes the destination;

a step of sequentially calculating, for each of the found reachable routes, a time when a target mobile apparatus will pass at predetermined speed along the route through each link composing the reachable route;

a step of calculating, for each link, a number of

presumed passing apparatuses that indicates how many mobile apparatuses will pass through the link simultaneously when the target mobile apparatus will pass through the link, based on the present position of the mobile apparatuses other than the target mobile apparatus and the route recorded in said mobile apparatus position/route management table;

a step of calculating a weight to be provided to each link based on the number of presumed passing apparatuses calculated for each link; and

a step of searching for the route based on a route graph with each link provided with at least the weight calculated based on the number of presumed passing apparatuses.